# NEW GENERA AND SPECIES OF THYRIDIDAE AND GEOMETRIDAE FROM AFRICA.

#### BY W. WARREN, M.A., F.E.S.

## FAMILY THYRIDIDAE.

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#### 1. Dysodia fenestratella sp. nov.

Forewings: olive-drab; the markings olive fuscous; the costa with four dark marks, one near base, one before and beyond the middle, the fourth before apex; from the inner side of the last a thick olive fuscous band runs parallel to the hindmargin as far as vein 2, where it is joined by a shorter band from the subcostal vein, the two forming a V-shaped mark; above and below the median vein on the inner side of the V are two small round hyaline spots, the upper one within the cell; beyond the outer arm are three similar spots in the spaces between veins 2 and 5; below vein 2 the V-shaped mark swells out into an inverted funnel-shaped mark resting on the inner margin; beyond the three outer hyaline spots are several smaller pale spots mixed with dark scale patches ending in a larger patch at anal angle; from the outer arm of the V below the costa a curved dark streak runs to middle of hindmargin: fringe olive fuscous; all the veins pale.

*Hindwings*: with a large anvil-shaped hyaline blotch, round which are collected an irregular lot of small round hyaline spots alternating with dark olive patches; marginal area paler, without spots.

Underside mottled with greenish grey and olive fuscous; the V-shaped mark of forewings dark and very conspicuous. Head, thorax, and abdomen like ground colour of wings.

Expanse of wings : 21 mm.

One 3 from the west side of the Luitpold Mountains, near Ikutha, British East Africa.

The costa of forewings is incurved in middle : hindmargin of both wings bulged at vein 3, in the hindwings indented beyond cell.

#### FAMILY GEOMETRIDAE.

## SUBFAMILY GEOMETRINAE.

#### Lathochlora gen. nov.

Forewings: with costa curved throughout, more strongly arched at base; apex prominent, blunt; hindmargin somewhat irregularly concave from apex to vein 3, then sharply oblique.

Hindwings: blnntly angled at vein 4, and elbowed at vein 6, concave between.

Palpi moderate, the terminal joint drooping ; tongue present ; frenulum absent ; antennae short and thick, subserrate, with close clavate teeth, rasped above.

Neuration: forewings, cell broad, about one-third of wing; discocellular shortly concave above, then oblique and faint; first median nervule at two-thirds, second and third from lower angle of cell; lower radial from the bend in the discocellular,

upper from upper angle of cell; the five subcostals stalked, 11 anastomosing strongly with 12. Hindwings : with 3, 4, and 6, 7 stalked.

Type : Lathochlora inornata sp. nov.

The genns is certainly allied to *Halophanes* Warr. from India, but sufficiently distinct.

## 2. Lathochlora inornata sp. nov.

*Forewings*: dull greyish green, with an indistinct pale curved space at one-third, and another at four-fifths, this last becoming whitish on inner margin before anal angle; fringe somewhat paler.

Hindwings: with outer enrved space only: the basal area pale, subhyaline.

Underside similar, but paler, the markings more diffuse. Head, thorax, and abdomen pale green ; antennae ochreous.

Expanse of wings : 25 mm.

One ? from Warri, Niger Coast Protectorate, May 1897 (Dr. Roth).

#### SUBFAMILY STERRHINAE.

#### 3. Craspedia planipennis sp. nov.

*Forewings*: bone-colour, obscurely powdered or discoloured with ochreous; the costal edge at base brownish; in certain lights three faintly darker waved lines can be detected, inner, median and outer, the last the plainest; slight brownish marginal dots, often effaced; fringe concolorous; no cellspot.

Hindwings: similar: with an obscure brownish cell dot.

Underside pale, unmarked; the costa of forewings yellowish. Face and palpi above dark brown; vertex, thorax, and abdomen bone-colour.

Expanse of wings : 26 mm.

One & from Sierra Leone.

Forewings with apex rounded : hindwings with hindmargin well rounded, the anal angle almost lobed.

#### 4. Craspedia rufinubes sp. nov.

Forewings: bone-colour, hardly speckled; first and second lines indistinct, at one-third and one-half of costa, both angled outwards, in cell and on vein 6, then oblique inwards to one-fourth and beyond middle of inner margin respectively: exterior line red brown and fine at three-fourths, shaped as in addictaria Wlk., followed except at costa by a lunulate purplish grey band, which is fringed with rufons and darker beyond cell and above anal angle: submarginal line waved, followed by a marginal rufous fuscous band, finely edged with white before the black festooned marginal line; fringe bone-colour, tinged with rufous and grey; apical pale space with a patch of black-and-white scales; cellspot black, placed in an indistinct grey annulus, which is sometimes faint.

*Hindwings*: with the cellspot placed in a large grey loop formed by the median line; outer line and submarginal shades rufous grey, less pronounced than in forewings.

Underside with the lines and markings grey. Face and palpi above black brown; vertex, thorax, and abdomen concolorous with wings.

Expanse of wings 22-24 mm.

Three && from Unyoro; two from Warringo River, August and December 1897, one from Ulumb, January 1898 (Dr. Ansorge).

### (92)

### 5. Eois macrostyla sp. nov.

Forewings: ochreous, tinged with yellowish, and dusted with fuscous; costa brownish fuscons at base; the lines brown; first at one-fourth, well marked on costa, below which it is bent: onter line at three-fourths, bluntly angled ontwards on vein 6, then oblique to inner margin at three-fourths; median shade indistinct; submarginal line pale, between ochraceous shades; fringe glossy ochreous, with rather large dark spots at the base beyond the edge of the wing.

Hindwings: with the outer line sinuous, and a slight cellspot.

Underside more strongly tinged with yellowish, and more coarsely speckled with blackish; the lines darker. Thorax and abdomen ochraceous; vertex pale, face and palpi dark brown.

Expanse of wings: 10 mm.

One  $\mathcal{J}$  from the west side of the Luitpold Mountains, near Ikutha, British East Africa.

I have not been able to dennde the unique specimen, but as far as can be made out, veins 6, 7 of the hindwings separate just before the hindmargin.

### 6. Eois sublimbaria sp. nov.

Forewings: bone-colour, roughly freckled with pale greyish or brownish scales; costa marked with indistinct purplish grey dashes, denoting the origin of the lines; these are scarcely traceable, but appear to run all parallel to the bindmargin, which is preceded by purplish grey scales, most prominent beyond the cell; fringe concolorous, chequered with purplish grey; no cellspot.

Hindwings : with the dark marginal scales more prominent.

Underside similar. Face purplish brown : vertex, thorax, and abdomen concolorous with wings.

Expanse of wings : 14 mm.

One 3 from South Africa.

#### 7. Induna curvimargo sp. nov.

Forewings: bone-colour, faintly powdered with darker; first and second lines ochraceous, diffuse; first at one-fifth, angled in cell; second from just beyond one-half, angled on vein 6, to middle of inner margin; third line brown, fine and concise, rounded at vein 6, then sinnous to three-fourths of inner margin, followed by an ochraceous shade with lumulate outer edge, stopping short at vein 6, below which it is darkest; shade beyond submarginal line hardly expressed; marginal line brown, containing darker dots between the veins in upper half of wing; fringe bone-colour, tinged with ochraceous; cellspot black.

Hindwings: without first line; the shade beyond outer line fainter.

Underside bone-colonr, speckled with pale brown; cellspots and outer line only plain. Face and palpi brown; vertex, thorax, and abdomen like wings.

Expanse of wings : 22 mm.

One  $\mathcal{S}$  from Mpeta, Loangwa River, affluent of the Zambesi, November and December 1895, the beginning of the rainy season (Coryndon).

Very near to *Induna albida* Warr. from Usuga; but the hindmargin of both wings bent in the middle, in the hindwings strongly; hind-tibiae without pencil of hairs and without spurs; tarsi as long as tibiae.

## (93)

### 8. Isoplenia albivertex sp. nov.

Forewings: pale ochroous, varied with rufous scales, as far as the second line, and densest at base; lines rufous; first at one-third, curved; second at two-thirds, denticulate outwards on the veins, the teeth of veins 3, 4, and 6 prominent; third line at five-sixths, parallel throughout to second, followed by a lunulate reddish fascia; marginal line thick, red, swollen along the veins, which are also red beyond third line; fringe reddish; cellspot linear, reddish.

*Hindwings*: similar; the third line not so near the hindmargin, and the submarginal fascia not so distinct.

Underside pale ochreous, with the outer and marginal lines only.

Face and palpi reddish; antennae and vertex pure white; thorax and abdomen ochreous, much suffused with rufous.

Expanse of wings: 3 30 mm.

One & from Anderson River, Natal.

Differs from the type species *I. trisinuata* in having the vertex and antennae pure white instead of red; and the antennae are fully and obliquely pectinated.

#### 9. Ptychopoda basicostalis sp. nov.

Forewings: bone-colour dusted with grey, and tinged in places with ochreous; costa brown from base to first line; first line brown, at one-third of costa, below which it is angulated and then runs obliquely to one-fourth of inner margin; outer line from three-fourths of costa to three-fourths of inner margin, inwardly oblique and dark brown at costa, bent outwards at vein 6 and inwards on submedian fold, irregularly waved between. Cellspot large, black, with an indistinct ochraceous middle shade through it; two indistinct submarginal ochraceous shades.

*Hindwings*: with large black cellspot, and indistinct curved postmedian and snhmarginal lines.

Underside with cellspot and outer line very distinct.

Face, collar, and front of shoulders brown; vertex, thorax, and abdomen like wings.

Expanse of wings : 13 mm.

One 3 from South Africa.

The hindmargin of hindwings is bulged at middle; hindlegs wanting.

#### 10. Ptychopoda squamulata sp. nov.

Forewings: brownish-ochreous, the speckling and lines purplish fuseous; basal half of costa fuscous; inner line from two-fifths of costa and median obliquely curved inwards and parallel as far as the median vein, where the median line becomes divergent; within the inner line and near it is another less distinct; outer line sinuous, at four-fifths, followed by a sinuous purplish grey shade, which is partially obsolescent towards costa and is edged by the submarginal line beyond which is another grey shade; cellspot fuscous; fringe concolorous with wings, with a median line formed of dots of blackish scales beyond the vein ends.

Hindwings: with no inner lines; the purplish grey shade beyond onter line narrower.

Underside with basal and marginal areas speckled with fuscons, the space

between median and outer lines in both wings clearer. Face and palpi purplish fuscous; thorax, vertex, and abdomen concolorous with wings.

Expanse of wings : 14 mm.

One 3 from Weenen, Natal.

Though different in markings, it is possible this may be a form of *Pt. exilinota*. Warr., also from Weenen.

## 11. Sterrha griseolineata sp. nov.

Closely allied to *Sterrha punctilineata* Warr., Nov. ZOOL. IV. p. 63, from Weenen, Natal, but with all the lines and shading fuscous grey, not ochreous. The difference is more particularly noticeable on the underside.

Expanse of wings : 17 mm.-21 mm.

Two 33 from Howick, Natal.

#### SUBFAMILY ASTHENINAE.

#### Leucoxena gen. nov.

*Forewings*: narrow and elongate; costa curved only at base and before apex; hindmargin oblique, hardly curved; anal angle rounded off.

*Hindwings*: elongate: hindmargin curved and slightly elbowed at vein 4. Antennae of  $\delta$  bipectinated. The peetinations ciliated; palpi porrect, hairy, terminal joint short; hind-tibiae without spurs; tongue and frenulum present.

*Neuration*: forewings, cell half as long as wing: discocellular vertical; first median at two-thirds, second at seven-eighths; radials normal; 7, 8, 9, stalked from well before end of cell; 10 and 11 stalked, 10 anastomosing with 7, 8, 9. Hindwings with costal anastomosing with subcostal for only one-third of cell; veins 7 and 8 stalked; medians as in forewings; radial from centre of discocellular.

Type : Leuco.cena lactea, sp. nov.

### 12. Leucoxena lactea sp. nov.

Forewings: creamy white, finely dusted with fuscous atoms; two faint ochreous streaks from inner margin parallel to hindmargin, at one-third, and one-half, both obsolescent above the median vein; an oblique straight fuscous line from before apex to two-thirds of inner margin and an indistinct submarginal shade; marginal line fine, black, swollen into spots between the veins; fringe concolorous.

Hindwings: less dusted, with the two outer lines only.

Underside with costal area of forewings and marginal area of both wings beyond outer lines tinged with grey. Head, thorax, and abdomen white; shaft of antennae white, the joints and pectinations fuscous.

Expanse of wings : 22 mm.

One  $\mathcal{J}$  from the west side of Luitpold Mountains near Ikutha, British East Africa.

#### SUBFAMILY DEILINHNAE.

#### 13. Parasynegia rufigrisea sp. nov.

*Forewings*: dull like grey, speckled and suffused with vinous red; the costa strigulated with fuscous; a diffuse reddish patch at base, its outer edge curved and

## (94)

projecting in cell; central fascia narrow, with sinuous edges; inner edge from just before middle of costa to before middle of inner margin, outer edge at two-thirds; the edges parallel, outcurved above and incurved below middle; dentate-lunulate, the outer more regular than the inner; the inner shaded outwardly and the outer inwardly, with red, the lunules of the outer finely margined with grey; submarginal line grey, lunulate, preceded and followed by vinous red, and broadly interrupted between veins 4 and 6 by a lilac grey patch which extends to hindmargin, the apex also remaining grey; marginal spots dark red brown; fringe reddish-grey.

Hindwings : similar, the central fascia more filled up with red and narrowed towards inner margin, the cellspot linear, pale grey, with red edges.

Underside dull grey, tinged with red, the markings indistinct. Head, thorax, and abdomen lilac-grey tinged with red; the face, palpi, and shoulders red.

Expanse of wings : 44 mm.

One ? from Old Calabar. Differing in colouration and markings from all the Indian species of the genus, but agreeing in neuration except that the cell is shorter.

## SUBFAMILY ASCOTINAE.

# 14. Alcis argillacea sp. nov.

Forewings: straw colour, tinged in places with ochraceous, and speckled irregularly with brown; the lines brownish; first from one-fourth of costa to onethird of inner margin, bent in cell; second, median, from costa beyond middle to middle of inner margin, sinuous and regularly dentate; outer line from three-fourths of costa to inner margin close beyond median line, regularly dentate. followed by a dentate-lunulate shade which between veins 3 and 5 forms a large cloudy blotch; submarginal indistinct, preceded by darker lunules of which one below costa and two beyond cell are very conspicuous; cellspot and marginal spots large and brownblack; fringe concolorons.

Hindwings : similar, without first line.

Underside like upper. Head, thorax, and abdomen (damaged) like wings.

Expanse of wings : 52 mm.

One & from the Kassai country, Congo Free State, 1898.

The single example is unluckily worn. Gnenér's *emunctaria* from "Abyssinia" expands only 40 mm., while Walker's *ricaria* from South Africa, which corresponds in point of size, is greyish fawn-colonr. In the forewings veins 10 and 11 are short-stalked; the palpi are well developed, the third joint being fine and distinct, half as long as the second.

## SUBFAMILY SEMIOTHISINAE.

## 15. Gonodela siennata sp. nov.

Forewings: whitish, with coarse olive fuscons spots and striac: costal area fuscous, the costal edge itself rather deep ochreous, marked with black spots; the three lines starting from black spots; first at one-fifth, second before middle, third at two-thirds; the first angled in cell, then oblique inward: second angled on vein 6, then oblique, touching lower end of the oblique cellspot, and preceded on inner margin by a thick fuscous line; outer line fine, double, subsinuate, black with a lustrous grey line in the middle, followed by an irregularly dentate pale sienna brown fascia, speckled with black; marginal area purplish grey, with slight whitish spot towards apex; marginal line dark; fringe grey, with whitish base. *Hindwings*: with a black spot at base; a diffuse straight fuscous shade before middle, arched before the black cellspot; a double black straight postmedian line with a lustrons grey line between; marginal area as in forewings, with a pale triangular patch below median.

Underside with costa of both wings yellowish; the brown submarginal fascia broader; head and collar yellowish ochreous speckled with blackish; thorax and abdomen cinereons.

Expanse of wings : 38 mm.

One & from Warri, Niger Coast Protectorate, May 1897 (Dr. Roth).

## Platypepla gen. nov.

*Forewings*: short and broad; costa straight for the first half, then strongly convex; apex blunt, slightly produced; hindmargin faintly sinuous; anal angle rounded.

Hindwings : ample; the hindmargin very fully rounded.

Palpi short, thick, not reaching beyond forehead, terminal joint minute; antennae long, subserrate-ciliate; tongne and frenulnm present; legs rather stout; hind-tibiae with four spurs; forewings with fovea.

Neuration: forewings, cell fully half as long as wing, the extremities convergent; discocellular vertical; first median at five-eighths, second at seven-eighths; radials normal; 7, 8, 9, stalked from well before end of cell; 10 and 11 coincident, anastomosing with 12; submedian vein slightly bulged at base beneath the forea.

Hindwings : costal approximated to subcostal for half of cell; vein 7 well before end of cell; medians as in forewings; no radial.

Type Platypepla nudaria, sp. nov.

Closely approximating in structure to Semiothisa.

## 16. Platypepla nudaria sp. nov.

Forewings: pale fulvons ochreous, rather deeper tinged at base and along hindmargin; costa speckled with brownish fuscous; a small dark spot on costa near base, and an oblique dark streak at one-third, suggesting the commencement of basal and inner lines; traces of a postmedian line; cellspot black, distinct; fringe concolorons.

Hindwings: with black cellspot and traces of postmedian curved line on inner margin.

Underside yellower speckled with brown; cellspots and postmedian line of hindwings only visible. Head, thorax, and abdomen concolorous with wings; palpi brown above.

Expanse of wings: 22 mm.

One 3 from South Africa, without more precise locality.

The insect is not fresh, but does not appear to have ever had distinct lines or markings. It bears some superficial resemblance to the Lithosid genus *Nudaria*.

## SUBFAMILY FIDONIINAE.

#### 17. Fidonia acuta sp. nov.

*Forewings*: rufous ochreons, with transverse brown striae, the costa dotted with fuscous; hindmarginal area deeper-tinted, towards anal angle becoming violet

## (96)

grey. Marginal line formed of black dashes between the veins; fringe concolorous.

Hindwings : with the whole hindmargin narrowly violet grey.

Underside paler, dusted with rufous. Head, thorax, and abdomen concolorous. Expanse of wings : 22 mm.

One & from the Cape of Good Hope (Felder Coll.).

The forewings have the apex produced and subacute; the palpi are long and rostriform.

## SUBFAMILY ENNOMINAE.

## Pareclipsis punctata sp. nov.

*Forewings*: pale reddish fawn-colour, densely but finely black speckled; the lines marked by black spots on the veins; first slightly curved at one-fourth; second from five-sixths of costa below which it is slightly outcurved, oblique to threefourths of inner margin, where it becomes obscurely double; a slight oblique dark shade from apex; marginal spots black; cellspot large, black; fringe concolorous.

*Hindwings*: with a double postmedian line, the outer one dotted on the veins : a very faint trace of a submarginal line; marginal spots scarcely visible.

Underside, with blackish cellspots and an outer line of spots on veins, that in the hindwings being submarginal. Head, thorax, and abdomen concolorous.

Expanse of wings : 30 mm.

1 9 from Howick, Natal, Oct. 1891.

The apex of forewings minutely produced ; hindmargin sinnous, rounded, not elbowed, in the middle. Veins 7, 8, 9, stalked ; 10 and 11 free.

### PHRUDOCHORDA Warr., Nov. Zool. V. p. 254.

The genus was described from a  $\mathcal{J}$ , in which sex vein 7 is missing; but I find that in the  $\mathfrak{P}$  the neuration is complete, vein 7 being stalked with 8, 9. The antennae of the  $\mathfrak{P}$  are bipectinate as in the  $\mathcal{J}$ , the pectinations shorter and more delicate. The specimen, which belongs to the type species *fuscimargo*, was taken at Howick, Natal, in October 1891.

#### SUBFAMILY PROSOPOLOPHINAE.

#### Pachypalpia gen. nov.

Forewings: elongate; costa nearly straight; apex blunt; hindmargin obliquely curved; anal angle slight.

*Hindwings*: narrow; inner margin short; hindmargin subcrenulate, strongly rounded above, nearly straight from anal angle to middle.

Palpi porrect, stout and hairy, first joint distinct, second broad and expanded, hiding the third joint; antennae of  $\mathcal{S}$  stoutly bipectinate, of  $\mathcal{P}$  simple; tongue slightly developed; frennlum present; hind-tibiae swollen, with four spurs.

*Neuration*: forewing, cell half of wing; discocellular, vertical; first median at four-fifths, second close to third; radials normal; veins 7, 8, 9, stalked; 10 and 11 coincident, anastomosing very strongly with 8, 9, and both separating shortly before costa; hindwing: costal approximated to subcostal for half of cell; vein 7 from close before angle; no radial.

Type : Pachypalpia subalbata sp. nov.

## (98)

#### Pachypalpia subalbata sp. nov.

Forewings: pale grey, darker along inner and hindmargins; lines ill defined, but well marked by dark costal spots: first from one-fourth of costa to near base of inner margin, with darker spots on the veins; second, median, from beyond middle of costa to before middle of inner margin, followed by a largish cellspot; third from three-fourths of costa to just beyond middle of inner margin, marked by dark veinspots, and forming a sinus inwards beyond cell and on submedian fold; no spots on radial and submedian fold; submarginal pale, indistinctly waved, preceded by a lumulate oblique shade : marginal line dark : fringe whitish, with distinct dark marks beyond the veins.

*Hindwings*: with distinct dark marginal border: dark antemedian and dotted postmedian, nearly straight, lines; cellspot small.

Underside : white, speekled with fuscous ; both wings with dark marginal border, interrupted below middle and more distinct in hindwings ; cellspots present, but no lines. Head, thorax, and abdomen whitish, speekled with fuscous : face and palpi more varied with fuscous.

Expanse of wings : 30 mm.

A pair from the west side of Lnitpold Mountains, near Ikutha, British East Africa.

# NEW GENERA AND SPECIES OF DREPANULIDAE, THYRIDIDAE, EPIPLEMIDAE, AND GEOMETRIDAE.

# FROM THE INDO-AUSTRALIAN AND PALAEARCTIC REGIONS.

#### By W. WARREN, M.A., F.E.S.

## FAMILY DREPANULIDAE.

#### 1. Gogana integra sp. nov.

*Forcicings*: pale mouse-colour, dusted with darker, with traces of a dark central and double submarginal fascia, marked with dark brown and ferruginous; fringe with dark spots beyond the veins: no hyaline patch beyond cell.

Hindwings : without any markings.

Underside duller; head, thorax, and abdomen concolorous; face and palpi dark brown.

Expanse of wings : 26 mm.

One & from Government IIiII, Penang, 1,000 feet, May 1898 (Curtis).

In forewings the costa is very strongly protuberant near base, and the hindmargin produced in middle into a prominent triangle.

#### 2. Gonocilix renifera sp. nov.

*Forcerings*: white, with a large, slightly oblique, kidney-shaped blotch of ochreons and grey scales just before middle of inner margin, reaching to upper margin of cell and extending beyond it between veius 4 and 6, its origin represented by a small grey spot on costa at about one-third, and followed between veius 2 and 4